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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,707	04/16/2004	Xiaoqiang Luo	YOR920040045US1	3045

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EXAMINER
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NEWAY, SAMUEL G

ART UNIT	PAPER NUMBER
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2626

MAIL DATE	DELIVERY MODE
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08/28/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/826,707

Applicant(s)

LUO ET AL.

Examiner

Samuel G. Neway

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date. _____   | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. This is responsive to the Application filed on 16 April 2004.
2. Claims 1 – 20 are pending and are considered below.

### ***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 12 – 20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 12 – 20 are directed to a "computer program product" which, lacking a clear and precise definition in the specification, could reasonably be interpreted as program alone.

Computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized.

In contrast, a claimed statutory computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory.

Also, the computer readable medium recited in the above claims, in accordance with Applicant's specification, may be an electromagnetic signal (page 17). This subject matter is not limited to that which falls within a statutory category of invention because it is not limited to a process, a machine, a manufacture, or a composition of matter. Instead, it includes a form of energy. Energy does not fall within a statutory category since it is clearly not a series of steps or acts to constitute a machine, not a tangible physical article or object which is some form of matter to be a product and constitute a manufacture, and not a composition of two or more substances to constitute a composition of matter.

Amending the claims to recite 'A recordable-type medium encoding a computer program product ...' would overcome this rejection in a manner consistent with Applicant's specification.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Xue et al ("Building a Large-Scale Annotated Chinese Corpus", Proceedings of the 19<sup>th</sup> International Conference on Computational Linguistics, 2002).

Claim 1:

Xue discloses a method, in a data processing system, for parsing Eastern Asian language character streams (Introduction, lines 1-4), the method comprising:

receiving a corpus of word-based parse trees ("Using the data from the CTB-I ...", page 3, col. 1, Section 1.3.1, lines 1-3);

converting the corpus of word-based parse trees into a corpus of character-based parse trees ("the word segmentation problem can be modeled as an ambiguity resolution problem ... ", page 3, col. 2, Section 1.3.1, lines 3-6); and

training a parser using the corpus of character-based parse trees (page 3, col. 2, Section 1.3.1, lines 36-39).

Claim 2:

Xue discloses the method of claim 1, wherein each word-based parse tree in the corpus of word-based parse trees includes a word tag for each word in the word-based parse tree (Introduction, page 1, col. 1, lines 1-4).

Claim 3:

Xue discloses the method of claim 2, wherein converting the corpus of word based parse trees includes assigning a word position tag to each character in the character-based parse tree based on the word tag for each word in the word-based parse tree (page 3, col. 2, Section 1.3.1, lines 30-34).

Claim 4:

Xue discloses the method of claim 3, wherein the word position tag is one of a beginning tag, a middle tag, and an end tag (page 3, col. 2, Section 1.3.1, lines 30-34).

Claim 5:

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Xue discloses the method of claim 1, wherein training the parser includes forming a model (page 3, col. 2, Section 1.3.1, lines 36-39).

Claim 6:

Xue discloses the method of claim 5, further comprising: providing the model to a decoder, wherein the decoder parses Eastern Asian language character streams at a character level using the model ("testing", page 3, col. 2, Section 1.3.1, lines 36-39).

Claim 7:

Xue discloses the method of claim 6, further comprising: receiving a test sentence, wherein the test sentence is an Eastern Asian language character stream; and parsing the test sentence using the decoder to form one or more character-based parse trees ("testing", page 3, col. 2, Section 1.3.1, lines 36-39).

Claim 8:

Xue discloses the method of claim 1, wherein training the parser includes training the parser using maximum-entropy method (page 3, col. 2, Section 1.3.1, lines 36-39).

Claim 9:

Xue discloses the method of claim 1, wherein the Eastern Asian language is one of Chinese, Japanese, and Korean ("Using the data from the CTB-I ...", page 3, col. 1, Section 1.3.1, lines 1-3).

Claim 10:

Xue discloses the method of claim 1, wherein the corpus of word-based parse trees is a Chinese Treebank ("Using the data from the CTB-I ...", page 3, col. 1, Section 1.3.1, lines 1-3).

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Claim 11:

Claim 11 is similar in scope and content to claim 1 and is rejected with the same rationale.

Claims 12 – 20 :

Claims 12 – 20 are similar in scope and content to claims 1 – 9 and are rejected with the same rationale.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel G. Neway whose telephone number is 571-270-1058. The examiner can normally be reached on Monday - Friday 8:30AM - 5:30PM EST.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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